

### ABSTRACT

A resettable circuit interrupting device such as a GFCI that is immune to the problem of reverse wiring and, therefore, has load-line terminals that can be interchangeably connected to either at least one load or to a power source. Regardless of  
5 how the load-line terminals are connected, the resettable circuit interrupting device operates properly and retains leakage current fault protection. The circuit interrupting device includes an interrupting portion disposed within the device configured to cause electrical discontinuity in either the phase and/or neutral conductive paths between the line side and the load side upon the occurrence of a leakage condition. A reset portion  
10 disposed at least partially within the device is configured to initially establish or, after the detection of a leakage current fault, reestablish electrical continuity between the load and the line. The device comprises two differential transformers, one to detect leakage current when the load is connected to the load terminals, and the second coupled to detect leakage current when the load is connected to the line terminals. Separate rectifiers coupled to the  
15 differential transformers operate to power a solenoid to disconnect the line from the load upon the detection of leakage current in the load path.